10.S.1.Laws of Motion

Choose the correct answer

1. Inertia of a body depends on
   a) weight of the object   b) acceleration due to gravity of the planet
   c) mass of the object   d) Both a & b

2. Impulse is equals to
   a) rate of change of momentum   b) rate of force and time
   c) change of momentum   d) rate of change of mass

3. Newton's III law is applicable
   a) for a body is at rest   b) for a body in motion
   c) both a & b   d) only for bodies with equal masses

4. Plotting a graph for momentum on the Y-axis and time on X-axis. slope of momentum-   time graph gives
   a) Impulsive force   b) Acceleration   c) Force   d) Rate of force

5. In which of the following sport the turning of effect of force used
   a) swimming   b) tennis   c) cycling   d) hockey

6. The unit of 'g' is m s-2. It can be also expressed as
   a) cms-1   b) Nkg-1   c) Nm2kg-1   d) cm2s-2

7. One kilogram force equals to
   a) 9.8 dyne   b) 9.8 × 104 N   c) 98 × 104 dyne   d) 980 dyne

8. The mass of a body is measured on planet Earth as M kg. When it is taken to a planet of radius half that of the Earth then its value will be_____kg
   a) 4 M   b) 2M   c) M/4   d) M

9. If the Earth shrinks to 50% of its real radius its mass remaining the same, the weight of a body on the Earth will
   a) decrease by 50%   b) increase by 50%
   c) decrease by 25%   d) increase by 300%

10.   To project the rockets which of the following principle(s) is /(are) required?
   a) Newton's third law of motion   b) Newton's law of gravitation
   c) law of conservation of linear momentum   d) both a and c

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